Mine file

BARRICK MERCUR GOLD MINES, INC.

July 12, 1985

RECEIVED

JUL 12 1985

DIVISION OF OIL GAS & MINING

Mr. Lowell Braxton, Administrator
Mineral Resource Development & Reclamation Program
Utah State Department of Natural Resources
Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt lake City, Utah 84074

Dear Lowell:

SUBJECT: Mercur Gold Mine ACT/045/013. Tooele County, Utah
(with Proposed Amendment)

Pursuant to our July 10, 1985 meeting, please find attached the recalculated bond estimates for our existing permit and the proposed dump leach operation. As shown, the new bond estimate for the existing permit is $3,103,374 and $1,094,219 for the ultimate dump leach operation. An inflation of 3.79% was applied to both items.

In summary, the new bond total will be $4,197,593 as opposed to the existing bond amount of $5,745,331 (both less the $33,641 clean-up and salvage as approved by P. Littig's letter dated January 13, 1983). We are therefore requesting approval to bond both items at $4,197,593.

Please review the attached spread sheets and advise if you have any questions. We trust this will allow for timely conditional approval of dump leach Area 1 by July 19, 1985.

Respectfully,

Glenn M. Eurick
Environmental & Occupational Health Coordinator

GME/cg

Attachment

cc: J. C. Sprague

MERCUR MINE RECLAMATION COST ESTIMATE
12-14-82
by: B. W. Buck
Revised 7-12-75
by: G. M. Eurick

ITEM #	ACTIVITY	Areas EXCLUDED	AREAS INCLUDED	UNITS ACRES	HOURS WORK/ ACRE	TOTAL HOURS/ AREA	REQUIRED EQUIPMENT	$/HOUR (includ. operator)	TOTAL COST/ AREA	GENERAL NOTES
1	Clean-up and salvage	Foundations	structures(a) equipment	N/A			Loaders (2) Trucks (2) Crane (1)		33,640	All mining and process equipment and facilities have salvage value to balance demolition costs. Non-process buildings have less salvage value.
1	Subtotal								33,640	
2	Grading & Shaping	Open Pit Tailings Pond Public Roads	A. Dumps(b)	60 ac.	13	784 } 1,301	D8K Dozer	$114 Hr.		
			B. Soils Piles	18 ac.	6	108	D8K Dozer	$114 Hr.	148,815	Aft. topsoil removal
			C. Waterbars	50	0.5	25	D8K Dozer	$114 Hr.		
			D. Mill Site	32 ac.	12	384	D8K Dozer	$114 Hr.		Covering foundations
			E. Culvert Removal (c)	3 culverts	3.7	11.1 } 38.1	Cat 225 Excav	$140 Hr.	5,340	Haul Road Culverts
				12 culverts	2.25	27	Cat 225 Excav	$140 Hr.		Access Road Culverts

Calculations

D8K Dozer
1.301 hrs ÷ 176 Hrs/mth = 7.4 mths.

RB Pg 9-92	7.4 mths x $10,045/mth	$ 74,333 Equip
RB Pg 9-92	1301 hrs x $28.00/hr	$ 36,428 O.C.
Means pg 415	1301 hrs x $29.25/hr	$ 38,054 Labor
		$148,815

Cat 225 Excav.
38.1 hrs ÷ 8 hrs/day = 4.8 days

(a)	4.8 days x $755/day	$3,624 Equip
(b)	38.1 hrs x $15.80/hr	$ 602 O.C.
(a)	38.1 hrs x $29.25/hr	$1,114 Labor
		$5,350

(a) RB Pg 10-14
(b) RB Pg 10-14
(a) Means Pg 415

2	Subtotal								154,155	

(a) See attached demolition activity cost
(b) See attached dump regrading profile
(c) See attached culvert removal profile

(continued)

ITEM #	ACTIVITY	AREAS EXCLUDED	AREAS INCLUDED	UNITS ACRES	HOURS WORK/ ACRE	TOTAL HOURS/ AREA	REQUIRED EQUIPMENT	$/HOUR (includ. operator)	TOTAL COST/ AREA	GENERAL NOTES
3	Road Ripping	Public Roads Tailings Pond Access Plant Site Access	All Dump Roads	15 Ac.	1	15	D-8K Dozer	$139.00 Hr.	$2,089	w/3 shank ripper at 2.2 mph, double coverage.
Calculations	RB Pg 9-92	*Monthly Rate $ 10,045/mth ÷ 176 hrs/mth = $57/hr 15 hrs x $57/hr = $855 Equip RB Pg 9-92 15 hrs x $28/hr = $420 O.C. Means Pg 415 15 hrs x $29.25/hr = $439 Labor RB Pg 9-110 15 hrs x $25/hr = $375 3Shk. Ripper								
2	Subtotal								$2,089	
4	Scarifying before Topsoiling + Scarifying Topsoil Before Seeding	Open Pit Public Roads Plant Access Road Tailings Pond Access Dump Slopes	Plant Site Dump Tops	208 Ac.	0.33	69 } 138	16-G Grader	$139.50 hr	$9,626	16G ripper/scarifier at 2.4 mph. Plant Site = 32 acres Dump Tops = 95 acres Tailings Pond = 81 acres Total = 208 acres
			Tailings Pond	208 Ac.	0.33	69 }	16-G Grader	$139.50 hr	$9,626	
Calculations		138 hrs 176 hrs/mth = 0.8 mths RB Pg 9-6 0.8 mths x $11.560/mth = $9.248 Equip RB Pg 9-15 138 hrs x $17/hr = $2,346 Ripper/Scarifier Means Pg 415 138 hrs x $29.25/hr = $4,036 Labor RB Pg 9-6 138 hrs x $26.25/hr = $3,622 O.C. $19,252								
4	Subtotal								$19,252	

(continued)

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5a	Topsoil Replacement Level Area	Open Pit Public Roads Plant Access Road Tailings Pond Access Dump Slopes Tailings Dams Topsoil Piles	Plant Site Dump Tops Tailings Pond Ripped Roads Settling Ponds Tailings Dam Borrow Areas	341.3 ac ft N/A x43,560 14,867,028 ft^3 ÷ 27 550,630 yds^3		N/A	Cat 6273 1 ea 20 yd^3 Elev. Scraper Self Prop Push-Pull 1500' Haul 1/4 Push Dozer 4 loads/hr 80 yd^3/hr	$1.98/yd^3 calc.	$1,091,079	Scraper will load, haul and spread soil to: Plant Site = 32 Acres Dump Tops = 95 Acres Ripped Roads = 15 ac Settling Ponds = 6 ac Total 148 acres 148 x 0.5' = 74 ac. ft Tailings Pond = 81 ac Tailings Dam Borrow area = 21.8 102.8 x 2.6' = 267.3 Ac. Ft.

Calculations

550,630 yds^3/hr = 6,883 hrs

1 mth = 176 hrs

6,883 hrs/176 hrs/mth = 39 mths

RB Pg 9-83 39 mths x $15,195/mth = $592,605 Equip
RB Pg 9-83 6,885 hrs x $43.15/hr Oper $ = $297,088 O. C. } $1,091,079
Means Pg 415 6,885 hrs x $29.25/hr Labor = $201,386 Labor

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5b	Topsoil Replacement	Open Pit Public Roads Road Tailings Pond Access Dump Tops Tailings Ponds Ripped Roads Settling Ponds Topsoil Piles	Dump Slopes Tailings Dams Additional Clearing Tailings Dam Excess Stockpile	128.6 Ac Ft N/A x43,560 ÷ 27 → 207,465 yds^3		N/A	5 yd^3 IH550 Loader D8K Dozer	$2.95	$611,179	Separate load, haul, spread operations to cover; Dump Slopes = 57 acres 57 x 0.5' = 28.5 Ac Ft Tailings Dams = 25 ac Additional Clearing = 6.3 acres Excess Stockpile = 7.2 Acres 38.5 acres x 2.6' = 100.1 Ac Ft

Calculations

50 Wabco (50T/31yd^3)

4 Lds/hr x 31 yd^3/Ld → 124 yds^3/hr

207,475 yds^3 ÷ 124 yds^3/hr → 1,673 hrs

1,673 hrs/176 hrs/mth → 9.5 mths

RB pg 20-14 9.5 mths x $13,830/mth → $131,385 Equip
RB Pg 20-14 1673 hrs x $30.15/hr → $50,441 O.C.
Means Pg 415 1673 hrs x $29.25/hr → $48,935 Labor
} $230,761

Pg 9-58 Blue Book
IH 550 Loader

RB Pg 9-58 9.5 mths x 9,615/mth → $91,342 Equip
RB Pg 9-58 1673 hrs x $29.25/hr → $48,935 O.C.
Means Pg 415 1673 hrs x $29.25/hr → $48,935 Labor
$189,212

D8K Dozer

RB Pg 9-92 9.5 mths x $10,045/mth → $95,427 Equip
RB Pg 9-92 1673 hrs x $28.00/hr → $46,844 O.C.
Means Pg 415 1673 hrs x $29.25 → $48,935 Labor
$191,206

5	Subtotal	$1,702,258

ITEM #	ACTIVITY	AREAS EXCLUDED	AREAS INCLUDED	UNITS ACRES	HOURS WORK/ ACRE	TOTAL HOURS/ AREA	REQUIRED EQUIPMENT	$/HOUR (includ. operator)	TOTAL COST/ AREA	GENERAL/NOTES
6	Cover Crop Seeding	All other areas	-Dump Tops -Tailings Pond	176 Ac. 176 Ac.	0.25	44	Seed Drill and Tractor Seed Material	70.00/hr. 7.50/Ac.	3,080 1,320	Dump Tops = 95 acres Tailings Pond = 81 acres
6	Subtotal								4,400	
7	Perennial Seeding	-Open Pit -Public Roads -Plant and Tailings Access Roads	-Plant Site -Tailings Facility -Dumps -Soil Piles -Sediment Ponds	407 Ac. 407 Ac.	0.17	69.2	Hydroseeder Seed Material	95.00/hr. 166.00/Ac.	6,573 67,562	Plant Site = 32 acres Tailings = 106 acres Dump = 245 acres Soil Piles = 18 acres Sed. Ponds = 6 acres
7	Subtotal								74,135	
8	Fertilizing	As in #7	As in #7	407 Ac.			Fertilizer Mtr. 240 #/Ac. at 0.25/#	60.00/Ac.	24,420	Fertilizer is applied by hydroseeder with seed.
8	Subtotal								24,420	

(Continued)

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9	Planting Trees & shrubs	-Open Pit -Tailings Pond -Public Roads -Plant Access Road -Tailings Pond Access	-Plant Site -Soil Stockpiles -Tailings Dams -Dumps -Ripped Roads -Settling Ponds	341 Ac.			Materials Installation	0.65/plant 1.35/plant	49,871 103,579	Plant 225 stems/acre Plant Site = 32 acres Soil piles = 18 acres Tailings Dams = 25 acres Dumps = 245 acres Ripped Roads = 15 acres Settling Ponds = 6 acres Total = 341 acres
9	Subtotal								153,450	
10	Reseeding	As in #7	As in #7	(see notes) 204 Ac.	0.17	34.7	Hydroseeder	95.00/hr	3,295	based on perennial seeding of 50%
				204 Ac.			Seed Material	166.00/Ac.	33,864	of original seeding area
				204 Ac.			Fertilizer	2.40/Ac.	490	
10	Subtotal								37,649	
11	Monitoring	None	All	All			None	1000/yr.	3,000	annual inspections for 3 years following reclamation
11	Subtotal								3,000	

(Continued)

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12	Total								2,174,808	
13	Contingency								217,481	10%
14	Final Total								2,392,289	

3.79%/Year

1985 - 2,392,289
1986 - 2,482,957
1987 - 2,577,061
1988 - 2,674,312
1989 - 2,775,668
1990 - 2,880,866
1991 - 2,990,051
1992 - 3,103,374

MERCUR MINE DUMP LEACH RECLAMATION COST ESTIMATE
Prepared July 12, 1985
by G. M. Eurick

ITEM	ACTIVITY	AREAS INCLUDED	UNITS ACRES	HRS. WORK/ ACRE	TOTAL HRS./ AREA	REQUIRED EQUIPMENT	TOTAL $/HR.	TOTAL $/AREA	GENERAL NOTES	CALCULATIONS & REFERENCES
1	Grading/Shaping	Dumps Culverts	10 5 Culv.(Est)	13 3/Culv.	130 15 Est	D8K Dozer, Cat 225 Excav.	$114.25(1) $140.73(2)	$ 14,852 $ 2,111		(1)Monthly Rate Applied $10,045 pg 9-92 RRBB $10,045 ÷ 176 hr/mo = $57/hr Equip 130 hr x $57/hr = 7,410 Equip 130 hr x $28/hr = $3,640 Oper $ RRBB 9-92 130 hr x $29.25/hr = $3,802 Labor Means pg 415 SUBTOTAL $ 14,852 (2)Daily Rate Applied $755 pg 10-14 RRBB 15 hr ÷ 8 hr/day = 1.9 days 1.9 days x $755/day = $1,435 Equip 15 hr x $15.80/hr = $237 Oper $ RRBB pg 10-14 15 hr x $29.25/hr = $439 Labor Means pg 415 SUBTOTAL $ 2,111 TOTAL $ 16,963
2	Road Ripping	Dump Roads	2	1	2	D8K Dozer, W/3 Shank Ripper	$139	$ 278		Monthly Rate Applied $10,045 pg 9-92 RRBB $10,045 ÷ 176 hr/mo = $57/hr Equip 2 hr x $57/hr = $114.00 Equip 2 hr x $25/hr = $50.00 3 Shank Rip RRBB pg 9-110 2 hr x $28/hr = $56 Oper $ RRBB pg 9-92 2 hr x $29.25 = $58 Labor SUBTOTAL $ 278

ITEM	ACTIVITY	AREAS INCLUDED	UNITS ACRES	HRS. WORK/ ACRE	TOTAL HRS./ AREA	REQUIRED EQUIPMENT	TOTAL $/HR.	TOTAL $/AREA	GENERAL NOTES	CALCULATIONS & REFERENCES
3	Clay Cap Placement	Dump Tops	42 (101,640 Yds)	N/A	N/A	Cat 627B Scraper	$1.99/yd^3	$201,388	1.5' Clay on 42 acres 4 loads/hr 80 yd /hr	101,640 yd ÷ 80 yd^3 /hr = 1,270.5 hrs 1,270.5 hr ÷ 176 hr/mo = 7.2 mo 7.2 mo x $15,195/mo = $109,404 Equip, RRBB pg 9-83 1,270.5 hr x $43.15/hr = $54,822 Oper $/hr, RRBB pg 9-83 1,270.5 hr x $29.25/hr = $37,162 Labor, Means pg 415 SUBTOTAL $201,388
4	Soil/Topsoil Place, Level Areas	Ripped Roads Dump Tops	2 Acres 42 Acres 44 Acres (1613 yd^3) (+271,040 yd^3) 272,653 yd	N/A	N/A	Cat 627B Scraper	$1.986/yd^3	$541,522	1' Topsoil 1' Topsoil, 3' Subsoil 20 yd^3/Load 4 Loads/hr	272,653 yd^3 - 80 yd^3/hr = 3,408 hr 3,408 hr - 176 hr/mo = 19.4 mo 19.4 mo x $15,195 Mo = $294,783 Equip, RRBB pg 9-83 3,408 hr x $43.15 hr = $147,055 Oper $, RRBB pg 9-83 3,408 hr x $29.25 = $99,684 Labor Means pg 415 SUBTOTAL $541,522
5	Topsoil Replace Steep Areas	Dump Faces	19 Acres (9.5 A.F.) (15,327 yd^3)	N/A	N/A	503 Wabco (31 yd^3)(1) IH 550 Loader(2) D8K Cat Dozer(3)	$2.95/yd^3	$ 45,215	0.5' Topsoil Depth	(1)4 Loads/hr x 31 yds^3/1d = 124 yd^3/hr 15,327 Yd^3 ÷ 124 yd^3/hr = 124 hr 124 hr ÷ 176 hr/mo = 0.7 mo 0.7 mo x $13,830/mo = $9,681 Equip RRBB pg 20-14 124 hr x $30.15/hr = $3,739 Oper $ 124 hr x $29.25/hr = $3,627 Labor Means, pg 415 $ 17,047

ITEM	ACTIVITY	AREAS INCLUDED	UNITS ACRES	HRS. WORK/ ACRE	TOTAL HRS./ AREA	REQUIRED EQUIPMENT	TOTAL $/HR.	TOTAL $/AREA	GENERAL NOTES	CALCULATIONS & REFERENCES
										(2)0.7 mo x $9,615/mo = $6,731 Equip 124 hr x $29.25/hr = $3,627 Oper $ RRBB pg 9-58 124 hr x $29.25/hr = $3,627 Labor Means pg 415 $ 13,985 (3)0.7 x $10,045/mo = $7,032 Equip 124 hr x $28.00/hr = $3,472 Oper $ RRBB pg 9-92 124 hr x $29.25/hr = $3,627 Labor Means pg 415 $ 14,131 SUBTOTAL $ 45,163
6	Topsoil Scarify Level Areas	Dump Tops Ripped Roads	42 2 44	0.33	14.5	Cat 16G Grader, w/Ripper/ Scarifier	$139.50	$2,023±		14.5 hr ÷ 176 hr/mo = 0.082 Mo 0.082 mo x $1,560/mo = $953 Equip RRBB pg 9-6 14.5 hr x $17/hr = $247 Ripper RRBB pg 9-15 14.5 hr x $26.25/hr = $381 Oper $ RRBB pg 9-6 14.5 hr x $29.25/hr = $424 Labor SUBTOTAL $ 2,005
7	Cover Crop Seeding	Dump Tops, Faces, Roads	42 19 2 63	0.25	16	Seed Drill Tractor Seed	$70 $7.50/Acre	$1,120 $ 473		$ 1,593

ITEM	ACTIVITY	AREAS INCLUDED	UNITS ACRES	HRS. WORK/ ACRE	TOTAL HRS./ AREA	REQUIRED EQUIPMENT	TOTAL $/HR.	TOTAL $/AREA	GENERAL NOTES	CALCULATIONS & REFERENCES	
8	Perennial Crop Seeding	Dumps, Roads Soil Piles	42+19+2+1 = 64	0.17	11	Hydroseeder Seed	$95/hr $166/acre	$ 1,045 $ 10,624			$ 11,669
9	Fertilizing	Dumps, Roads Soil Piles	42+19+2+1 = 64	0.17	11	Hydroseeder Fertilizer	$95/hr $166/acre	$ 1,045 $ 10,624			$ 11,669
10	Planting	Dumps, Roads Soil Piles	42+19+2+1 = 64	---	---	Materials Install.	$0.65/plant $1.35/plant	$ 9,360 $ 19,440	225/Acres = 14,400 plants		$ 28,800
11	Reseeding	Dumps, Roads Soil Piles	42+19+2+1 = 64 - 2 = 32 acres	0.17	5.5	Hydroseeder Seed	$95/hr $166/acre	$ 523 $ 5,312	Reseed 50% Perennial Seed Area		$ 5,835
12	Monitoring	All	---	---	---	---	---	$ 3,000			# 3,000

SUBTOTAL	$869,885
CONTINGENCY (10%)	86,988
TOTAL	$782,897

Inflated @ 3.79% for 10 Years
1985 = 782,897
1986 = 812,569
1987 = 843,365
1988 = 875,329
1989 = 908,504
1990 = 942,936
1991 = 978,673
1992 = 1,015,764
1993 = 1,054,262
1994 = 1,094,219